

MATH NEWS



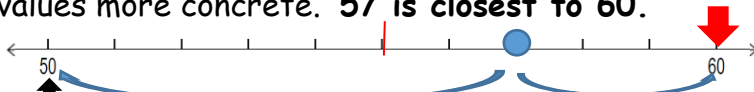
Third Grade Newsletter

Summer/Fall

Math Tips for Families

Unit 2: Rounding, Addition and Subtraction

Overview: In this unit, students will learn about the relationship of numbers to friendly numbers (those ending in a zero that are either a ten or hundred). Rounding is a mathematical term used to describe this. We use number lines to make our understanding of the values more concrete. **57 is closest to 60.**



Students will also continue to build on their adding and subtracting skills in this unit, using strategies that show their thinking and using multiple representations.

While exploring equations, students will continue to reinforce the understanding that the equal sign (=) means **both sides** of the equation **have the same amount**. The equal sign represents the relationship between two values where one side of an equation is the same as the other. **$97 + 6 = 100 + 3$**

Though we still want to "find the answer", more emphasis is on the process or making sense of the values. We focus on finding the unknown number or the number that will make the equation true.



Foundation Skills (what came before)

Students read and wrote numbers to 1000 using base-ten numerals, number names, and expanded form and they added and subtracted, as well.

They used strategies based on place value, properties of operations, and the relationship between addition and subtraction. They used concrete models (number bonds, open number lines) and drawings and related these to written methods (wrote equations).

At times, they used composing decomposing tens and/or hundreds to make their calculations more simple.

See the back for how these strategies are used now.



Words to Know

benchmark: a number or numbers that help to estimate a value

equation: a number sentence with an equal sign that has the same amount on both sides

friendly number: a number that ends in zero (either a ten or hundred: 20, 300, 50, 100)

midpoint: a number that is halfway between two benchmark values. (20....**25**....30)

round/rounding: to change a number to a less exact number that is more convenient to use based on place value



Using Questions

- What do you notice about the two numbers that you are working with?
- What is the closest ten or hundred to this number _____?
- How is a number line helpful to you when rounding?
- What is a friendly number and how is it helpful when adding and subtracting?
- How do you know your answer is reasonable? Does it make sense?
- How could you check your answer?

Possible Addition Strategies

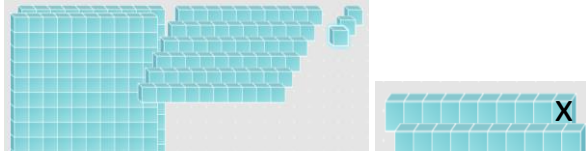
$$264 + 19 = \underline{\quad}$$

***Expanded Form** - Think $200 + 60 + 10 + 4 + 9$

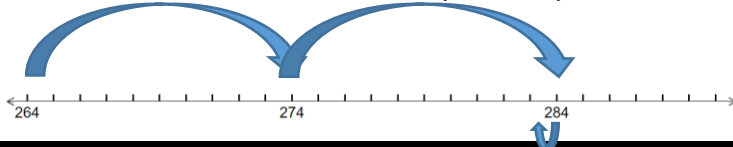
$$200 + 70 + 13$$

***Use Compensation to Make a Friendly Number-**
Think $263 + 20$ (easier to add) *instead of* $264 + 19$

***Base Ten Blocks** - Think $200 + 20 - 1$



***Number Line** - Think $264 + 20$ ($20 - 1 = 19$) $- 1$

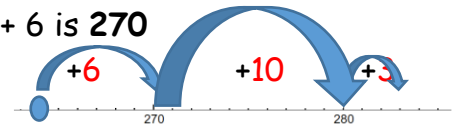


***Partial Sums**

$$\begin{array}{r} 264 \\ + 19 \\ \hline 200 \\ + 70 \\ + 13 \\ \hline 283 \end{array}$$

***Use an Open Number Line to count up**
(decompose the addend to make it easier) $264 + 19$ so

$264 + 6$ is 270



$$264 + 6 = 270 \quad 270 + 10 = 280 \quad 280 + 3 = 283$$

Key California Content Standards for this Unit

3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.

3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Possible Subtraction Strategies

$$264 - 237 = ?$$

***Think addition...Use counting up** $237 + ? = 264$

rewrite the equation as a missing addend problem

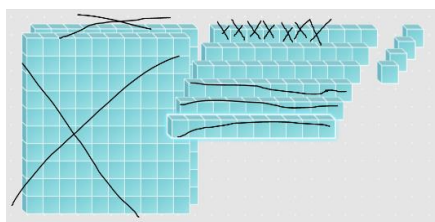
$237 + 10$ is 247 , $+10$ is 257 , $+3$ is 260 , $+4$ is 264

so the difference is $10 + 10 + 3 + 4 = 27$

***Base Ten Blocks:** Build 264.

then cross out **2 hundreds, 3 tens, and 7 ones**.

2 tens and 7 ones are left.



***Expanded Form:**

$200 + 60 + 4$ (with compensation) Think $- 240$

$$\begin{array}{r} 200 + 60 + 4 \\ - 200 - 40 \\ \hline \end{array}$$

$20 + 4 + 3$ (since you subtracted 40 instead of 37)

$$27$$

***Maintain the Difference**

$$264 - 237$$

$$\begin{array}{r} +3 \quad +3 \\ 267 - 240 \end{array}$$

$$267 - 240$$

So $200 - 200 = 0$ or 267

$$67 - 40 = 27 \quad \begin{array}{r} -240 \\ 27 \end{array}$$

$$27$$

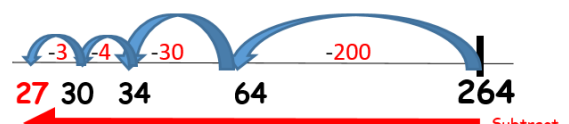
***Decompose (break apart) the Subtrahend** (smaller number) and subtract in chunks on an open number line.

$264 - 237$ so $264 - 200$ is 64 .

$64 - 30$ is 34 ,

$34 - 4$ is 30 .

$30 - 3$ is 27 .



How You Can Help Activities for Home

- Have them count a handful of change, then ask how much more they would need to get to a dollar.
- At the grocery store, ask your child to round the price of an item to the nearest dollar. Have them keep track of the rounded amounts, add them together and then see if their estimate was close to the total amount.

The concepts in this newsletter have been informed and adapted from these sources:

- Teaching Student Centered Mathematics
- California Mathematics Content Standards
- California Mathematics Framework
- Eureka Math Tips for Parents
- Lafayette Parish School System: "All Hands on Deck with Math" webpage



TUSD ~

Supporting community & family understanding